

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of receiving radio signals in a receiver for a digital wireless communications system, the method comprising the steps of:

level adjusting a received radio signal by an automatic gain control;

despreading the level adjusted signal in a RAKE unit having a number of fingers, thus providing a number of original despread data symbols;

representing each original despread data symbol by a first number of bits;

maintaining each original despread data symbol represented by the first number of bits in a memory;

deriving obtaining from each original despread data symbol represented by the first number of bits, a truncated data symbol comprising represented by a second number of bits, the ~~truncated data symbol obtained by truncating each despread data symbol provided from the RAKE unit, said second number of bits being the least significant bits of the first number of bits representing each despread data symbol;~~

maintaining each truncated data symbol represented by the second number of bits in a memory;

saturating the truncated data symbols represented by the second number of bits to obtain saturated data symbols by replacing the second number of bits by a value determined as follows:

comparing the original despread data symbol represented by the first number of bits to the truncated data symbol represented by the second number of bits obtained from the original despread data symbol represented by the first number of bits;

if the value of the original despread data symbol represented by the first number of bits from which the truncated data symbol was obtained is larger than the highest

value that can be represented by the truncated data symbol represented by the second number of bits, then replacing each such truncated data symbol represented by second number of bits with said highest value that can be represented by the second number of bits; or

if the value of the original despread data symbol represented by the first number of bits from which the truncated data symbol was obtained is less than the lowest value that can be represented by the truncated data symbol represented by the second number of bits; then replacing each such truncated data symbol with said lowest value that can be represented by the second number of bits;

obtaining a new despread data symbol by replacing the second number of bits as the least significant bits with, as the case may be, the highest value that can be represented by the second number of bits, or lowest value that can be represented by the second number of bits, as determined in the saturating and comparing steps; and

level adjusting the new despread data symbols provided from the RAKE unit in dependence of said newly determined despread data symbols, so that overflow for the truncated data symbols is prevented.

2. (Currently Amended) A method according to claim 1, ~~characterized in that said wherein the~~ step of level adjusting the despread data symbols provided from the RAKE unit comprises the step of measuring the level of the despread data symbols.

3. (Previously Presented) A method according to claim 1 further comprising the steps of:

measuring the level of the saturated data symbols; and

then level adjusting the despread data symbols provided from the RAKE unit based on the measured level of the saturated data symbols.

4. (Previously Presented) A method according to claim 1 wherein said level adjusting of the despread data symbols is performed by adjusting a reference value of said automatic gain control.

5. (Previously Presented) A method according to claim 1 wherein said level adjusting of the despread data symbols is performed by adjusting the level of each despread data symbol individually in dependence of that despread data symbol.

6. (Previously Presented) A method according to claim 1 wherein said level adjusting is based on the largest of an in-phase component and a quadrature component of said despread data symbols.

7. (Previously Presented) A method according to claim 1 wherein said level adjusting is based on data symbols averaged over time.

8. (Previously Presented) A method according to claim 1 wherein said level adjusting is performed by using a Proportional-Integral control algorithm.

9. (Previously Presented) A method according to claim 1 wherein said level adjusting is performed by selecting one of two different adjustment levels.

10. (Currently Amended) A receiver for receiving radio signals in a digital wireless communications system, the receiver comprising:

means for level adjusting a received radio signal by an automatic gain control;
a RAKE unit having a number of fingers;

means for despreding the level adjusted signal in the RAKE unit and providing a number of original despread data symbols, each original despread data symbol being represented by a first number of bits;

a memory for maintaining each original despread data symbol represented by the first number of bits;

means for deriving obtaining from each despread data symbol represented by the first number of bits, a truncated data symbol ~~comprising~~ represented by a second number of bits, the truncated data symbol obtained by truncating each original despread data symbol provided from the RAKE unit, said second number of bits being the least significant bits of the first number of bits representing each original despread data symbol;

a memory for maintaining each truncated data symbol represented by the second number of bits;

means for saturating the truncated data symbols represented by the second number of bits to obtain saturated data symbols said means for saturating the truncated data symbols represented by the second number of bits operable to replace the second number of bits by a value determined by a comparator; as follows:

a comparator for comparing the original despread data symbol represented by the first number of bits to the truncated data symbol represented by the second number of bits, the comparator operable to:

replace each truncated data symbol represented by the second number of bits with the highest value that can be represented by the second number of bit, if the value of the original despread data symbol from which the truncated data symbol was obtained is larger than the highest value that can be represented by the second number of bits; ~~then said means operable to replace each truncated data symbol with said highest value that can be represented by the second number of bit; or~~

replace each truncated data symbol with the lowest value that can be represented by the second number of bits if the value of the original despread data symbol from which the truncated data symbol was obtained is less than the lowest value that can be represented by the second number of bits; ~~then said means operable to replace each truncated data symbol with the lowest value that can be represented by the second number of bits; and~~

means for obtaining a new despread data symbol by replacing the second number of bits as the least significant bits with, as the case may be, the highest value

that can be represented by the second number of bits, or lowest value that can be represented by the second number of bits, as determined by the comparator; and

means for level adjusting the new despread data symbols—provided from the RAKE unit in dependence of said despread data symbols, so that overflow for the truncated data symbols is prevented.

11. (Previously Presented) A receiver according to claim 10 adapted to adjust the level of the despread data symbols provided from the RAKE unit by means of measuring the level of the despread data symbols.

12. (Previously Presented) A receiver according to claim 10, adapted to:
measure the level of the saturated data symbols; and
then adjust the level of the despread data symbols provided from the RAKE unit based on the measured level of the saturated data symbols.

13. (Previously Presented) A receiver according to claim 10 adapted to adjust the level of the despread data symbols by adjusting a reference value of said automatic gain control.

14. (Previously Presented) A receiver according to claim 10 adapted to adjust the level of the despread data symbols by adjusting the level of each despread data symbol individually in dependence of that despread data symbol.

15. (Previously Presented) A receiver according to claim 14 adapted to base said level adjusting on the largest of an in-phase component and a quadrature component of said de-spread data symbols.

16. (Previously Presented) A receiver according to claim 10 adapted to base said level adjusting on data symbols averaged over time.

17. (Previously Presented) A receiver according to claim 8 adapted to perform said level adjusting by using a Proportional-Integral control algorithm.

18. (Previously Presented) A receiver according to claim 10 adapted to perform said level adjusting by selecting one of two different adjustment levels.

19. (Previously Presented) A receiver according to claim 10 wherein the receiver is a WCDMA receiver.

20. (Canceled)

21. (Previously Presented) A computer readable medium having stored thereon program code means for performing the method of claim 1 when said program code means is stored on a computer readable medium and executed by a processor on a computer.